If you are using a printed copy of this procedure, and not the on-screen version, then you <u>MUST</u>
make sure the dates at the bottom of the printed copy and the on-screen version match.

The on-screen version of the Collider-Accelerator Department Procedure is the Official Version.

Hard copies of all signed, official, C-A Operating Procedures are available by contacting the

ESSHQ Procedures Coordinator, Bldg. 911A

C-A OPERATIONS PROCEDURES MANUAL

ATTACHMENT

4.120.124.j.a ATF Laser Facility Critical Device Tests

C-A OPM Procedures in which this Attachment is used.				
4.120.124				

Hand Processed Changes

<u>Date</u>

 		
 		
Approved:	Signature on File	
	Physics Department Chair	Date

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Page Nos.

<u>Initials</u>

HPC No.

4.120.124.j.a ATF Critical Device Tests

ATF ANNUAL ACCEPTANCE TEST PROTOCOL

Division A Software Filename and Checksum: Title:	Checksum:	
Division B Software Filename and Checksum: Title:	Checksum:	
Initial testing complete:		
Test Team Leader's Name (Print):	_ Life Number:	
Test Team Leader's Name (Sign):	Date: /	
Acceptance test procedure complete (following repairs and retesting if required):		
Test Team Leader's Name (Print):	Life Number:	
Tess Team Beader 81 (ame).		
Test Team Leader's Name (Sign):	Date:/	
<u>Test results reviewed by:</u>		
Safety Section Head's Name (Print):	I to Name have	
Safety Section read's Name (Frint):	_ Life Number:	
Safety Section Head's Name (Sign):	Date:/	
Test results accepted by Radiation Safety Committee:		
RSC Member's Name (Print):	Life Number:	
RSC Member's Name (Sign):	Date:/	
AND TARMET DITUME (DBI):	Dutc	

LOTO INSTRUCTIONS

During these tests the <u>Laser Power Supplies</u> must be LOTOed by the ATF Laser Facility Manager or Designee and the Access Controls Security Group Leader or Designee.

Verify	Laser Power Supplies, except YAG PS, are	LOTOed
Verify	Key to YAG PS is	LOTOed
Verify	YAG Laser Bypass Shutter is	CLOSED
•	ons for Normal State for YAG Room (YR): Pri CD, Yag Laser s	

1.1 CD, Yag Power supplies (YPS) Enabled; Pri Cds: LL2 to YAG shutter (LY2S); LL3to YAG shutter (LY3S) and Rhb CD Laser Lab Shutter (LLS)

SET VERIFY SET VERIFY	YR Sweep ACR sees YR Sweep is LL Sweep ACR sees LL Sweep is	NG SWEEP NG SWEEP NG SWEEP
VERIFY	ACR sees on Over-view Page (OVP) Local Shutters: YLS \square and Rhb CD LLS \square	DISABLED
VERIFY VERIFY SET VERIFY	Visually YLS □ and LLS □ are Attempt to open YLS □ and LLS □ with Shutter keys in ACR YLS and LLS Shutter keys in Closed position YLS □ and LLS □ Shutter key position is	CLOSED FAIL CLOSED
VERIFY VERIFY VERIFY VERIFY SET	ACR sees on Over-view Page (OVP) Room to Room Shutters: LY2S □ and LY3S □ Visually LY2S □ and LY3S □ are Attempt to open LY2S □ and LY3S □ with Shutter keys in ACR Visually LY2S □ and LY3S □ are LY2S and LY3S Shutter keys in Closed position	ENABLED CLOSED SUCCESSFUL OPEN
VERIFY VERIFY	LY2S □ and LY3S □ Shutter key position is YR SOR is	CLOSED
VERIFY VERIFY	ACR sees on OVP Rhb CD Yag Power Supply (YLPS) is ACR sees YRBI/O-4 Out 14 is	ENABLED ON
CLOSE VERIFY CLOSE VERIFY CLOSE VERIFY CLOSE VERIFY CLOSE VERIFY	Yag Room to Vestibule 1 gate, YV1G1 YV1G1 Yag Room to Laser Lab gate, YLG1 YLG1 Exit Vestibule 1 gate, EV1G1 EV1G1 Gun Hutch to Vestibule 1 gate, GV1G1 GV1G1 Laser Lab to Vestibule 1 gate, LV1G1 LV1G1	CLOSED CLOSED CLOSED CLOSED

VERIFY VERIFY VERIFY SWEEP	Yag Room Crash Yag Room Blk I/O Atf Control Room Crash YR	OK OK OK
VERIFY	ACR sees Yag Room	SWEEP GOOD
VERIFY VERIFY VERIFY VERIFY VERIFY	ACR sees on OVP Pri CD Yag Laser Shutter, YLS , is Visually YLS is ACR sees on OVP Pri CD LL2 to Yag Shutter, LY2S , is Visually LY2S is ACR sees on OVP Pri CD LL3 to Yag Shutter, LY3S , is Visually LY3S is	ENABLED CLOSED ENABLED CLOSED ENABLED CLOSED
SWEEP VERIFY	LL ACR sees LL	SWEEP GOOD
VERIFY VERIFY	ACR sees on OVP Rhb CD Laser Lab Shutter, LLS , is Visually LLS is	ENABLED CLOSED
VERIFY VERIFY VERIFY VERIFY VERIFY	ACR sees YRBI/O-4 Out 5 is At YR Main Panel YLS enabled led is ACR sees C2BI/O-3 Out 9 is At CO2 Main Panel YLS enabled led is ACR sees FRBI/O-3 Out 1 is At FR Main Panel YLS enabled led is	ON ON ON ON ON
VERIFY VERIFY VERIFY	ACR sees YRBI/O-4 Out 7 is At YR Main Panel LY2S enabled led is ACR sees LLBI/O-3 Out 8 is At LL Main Panel LY2S enabled led is	ON ON ON
VERIFY VERIFY VERIFY VERIFY	ACR sees YRBI/O-4 Out 8 is At YR Main Panel LY3S enabled led is ACR sees LLBI/O-3 Out 9 is At LL Main Panel LY3S enabled led is	ON ON ON ON
VERIFY VERIFY VERIFY VERIFY	ACR sees YRBI/O-4 Out 9 is At YR Main Panel LLS enabled led is ACR sees LLBI/O-3 Out 11 is At LL Main Panel LLS enabled led is	ON ON ON ON
OPEN VERIFY VERIFY VERIFY VERIFY VERIFY	YLS with key at ACR ACR sees YRBI/O-4 Out 13 is Visually YLS is ACR sees for key in Open posn. ACRBI/O In 11 is ACR sees for YLS OPEN on OVP YRBI/O-2 In 6 is ACR sees FRBI/O-3 Out 8 is At FR Main Panel YLS Open led is	ON OPEN ON ON ON
CLOSE VERIFY VERIFY VERIFY	YLS with key at ACR ACR sees YRBI/O-4 Out 13 is Visually YLS is ACR sees for key in Closed posn. ACRBI/O In 11 is ACR sees for YLS CLOSED on OVP YRBI/O-2 In 7 is	OFF CLOSED OFF ON

VERIFY VERIFY	ACR sees FRBI/O-3 Out 9 is At FR Main Panel YLS Closed led is	ON ON
OPEN VERIFY VERIFY CLOSE VERIFY VERIFY	YLS with key at YR ACR sees for key in Open posn YRBI/O In 13 is ACR sees on OVP YLS is YLS with key at YR ACR sees for key in Closed posn YRBI/O In 13 is ACR sees on OVP YLS is	ON OPEN OFF CLOSED
OPEN VERIFY VERIFY CLOSE VERIFY VERIFY	YLS with key at C2R ACR sees for key in Open posn C2BI/O-2 In 8 is ACR sees on OVP YLS is YLS with key at C2R ACR sees for key in Closed posn C2BI/O-2 In 8 is ACR sees on OVP YLS is	ON OPEN OFF CLOSED
OPEN VERIFY VERIFY CLOSE VERIFY VERIFY	YLS with key at FR ACR sees for key in Open posn FRBI/O In 11 is ACR sees on OVP YLS is YLS with key at FR ACR sees for key in Closed posn FRBI/O In 11 is ACR sees on OVP YLS is	ON OPEN OFF CLOSED
OPEN VERIFY VERIFY VERIFY VERIFY VERIFY	LY2S with key at ACR ACR sees LLBI/O-4 Out 2 is Visually LY2S is ACR sees for key in Open posn. ACRBI/O In 4 is ACR sees for LY2S OPEN on OVP LLBI/O In 13 is ACR sees YRBI/O-3 Out 7 is At YR Main Panel LY2S Open led is	ON OPEN ON ON ON
CLOSE VERIFY VERIFY VERIFY VERIFY VERIFY	LY2S with key at ACR ACR sees LLBI/O-4 Out 2 is Visually LY2S is ACR sees for key in Closed posn. ACRBI/O In 4 is ACR sees for LY2S CLOSED on OVP LLBI/O In 14 is ACR sees YRBI/O-3 Out 8 is At YR Main Panel LY2S Closed led is	OFF CLOSED OFF ON ON
OPEN VERIFY VERIFY CLOSE VERIFY VERIFY	LY2S with key at YR ACR sees for key in Open posn YRBI/O In 11 is ACR sees on OVP LY2S is LY2S with key at YR ACR sees for key in Closed posn YRBI/O In 11 is ACR sees on OVP LY2S is	ON OPEN OFF CLOSED
OPEN VERIFY VERIFY CLOSE VERIFY VERIFY	LY2S with key at LL ACR sees for key in Open posn LLBI/O In 8 is ACR sees on OVP LY2S is LY2S with key at LL ACR sees for key in Closed posn LLBI/O In 8 is ACR sees on OVP LY2S is	ON OPEN OFF CLOSED

OPEN VERIFY VERIFY VERIFY VERIFY VERIFY	LY3S with key at ACR ACR sees LLBI/O-4 Out 3 is Visually LY3S is ACR sees for key in Open posn. ACRBI/O In 5 is ACR sees for LY3S OPEN on OVP LLBI/O In 15 is ACR sees YRBI/O-3 Out 9 is At YR Main Panel LY3S Open led is	ON OPEN ON ON ON
CLOSE VERIFY VERIFY VERIFY VERIFY VERIFY	LY3S with key at ACR ACR sees LLBI/O-4 Out 3 is Visually LY3S is ACR sees for key in Closed posn. ACRBI/O In 5 is ACR sees for LY3S CLOSED on OVP LLBI/O-2 In 0 is ACR sees YRBI/O-3 Out 10 is At YR Main Panel LY3S Closed led is	OFF CLOSED OFF ON ON
OPEN VERIFY VERIFY CLOSE VERIFY VERIFY	LY3S with key at YR ACR sees for key in Open posn YRBI/O In 12 is ACR sees on OVP LY3S is LY3S with key at YR ACR sees for key in Closed posn YRBI/O In 12 is ACR sees on OVP LY3S is	ON OPEN OFF CLOSED
OPEN VERIFY VERIFY CLOSE VERIFY VERIFY	LY3S with key at LL ACR sees for key in Open posn LLBI/O In 10 is ACR sees on OVP LY3S is LY3S with key at LL ACR sees for key in Closed posn LLBI/O In 10 is ACR sees on OVP LY3S is	ON OPEN OFF CLOSED
OPEN VERIFY VERIFY VERIFY VERIFY VERIFY	LLS with key at ACR ACR sees LLBI/O-4 Out 4 is Visually LLS is ACR sees for key in Open posn. ACRBI/O-2 In 0 is ACR sees for LLS OPEN on OVP LLBI/O-2 In 1 is ACR sees YRBI/O-3 Out 13 is At YR Main Panel LLS Open led is	ON OPEN ON ON ON
CLOSE VERIFY VERIFY VERIFY VERIFY VERIFY	LLS with key at ACR ACR sees LLBI/O-4 Out 4 is Visually LLS is ACR sees for key in Closed posn. ACRBI/O-2 In 0 is ACR sees for LLS CLOSED on OVP LLBI/O-2 In 2 is ACR sees YRBI/O-3 Out 14 is At YR Main Panel LLS Closed led is	OFF CLOSED OFF ON ON
OPEN VERIFY VERIFY CLOSE VERIFY VERIFY	LLS with key at YR ACR sees for key in Open posn YRBI/O In 14 is ACR sees on OVP LLS is LLS with key at YR ACR sees for key in Closed posn YRBI/O In 14 is ACR sees on OVP LLS is	ON OPEN OFF CLOSED
OPEN	LLS with key at LL	

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		Rhb CD, Yag l	ACR sees for key in Open posn LLBI/O-2 In 3 is ACR sees on OVP LLS is LLS with key at LL ACR sees for key in Closed posn LLBI/O-2 In 3 is ACR sees on OVP LLS is ons for Normal State for YAG Room (YR): Pri CD, Yag Laser sh Power supplies (YPS) Enabled; Pri Cds: LL2 to YAG shutter (L) and Rhb CD Laser Lab Shutter (LLS)	
1.2	to		s for Normal State for CO2 Room (C2R): Pri CDs: CO2 Osc Lase YCS) and Rhb CDs: CO2 Osc Power Supply (CLPS) and Yag L	
		SET	C2R Sweep	NG SWEEP
		VERIFY	ACR sees C2R Sweep is	NG SWEEP
		SET	YR Sweep	NG SWEEP
		VERIFY	ACR sees YR Sweep is	NG SWEEP
		VERIFY	ACR sees on Over-view Page (OVP) Local Shutters: CLS \square and YLS \square are	DISABLED
		VERIFY	Visually CLS □ and YLS □ are	CLOSED
		VERIFY	Attempt to open CLS , and YLS with Shutter keys in ACR	FAIL
		SET	CLS and YLS Shutter keys in Closed position	11112
		VERIFY	CLS □ and YLS □ Shutter key position is	CLOSED
		VERIFY	ACR sees on Over-view Page (OVP) Room to Room Shutter YCS	is ENABLED
	_	T/FID FDT/	V' 11 V/CC '	CL OCED
		VERIFY	Visually YCS is	CLOSED
		VERIFY VERIFY	Attempt to open YCS with Shutter key in ACR Visually YCS is	SUCCESSFUL OPEN
		SET 1	YCS Shutter keys in Closed position	OI EIV
		VERIFY	YCS Shutter key position is	CLOSED
		VERIFY	C2R SOR is	ON
	_	VEDIEV	ACD coop on OVD Dkh CD CO2 Oct Desires Consults (CL DC)	DAIA DI ED
		VERIFY VERIFY	ACR sees on OVP Rhb CD CO2 Osc Power Supply (CLPS) is ACR sees C2BI/O-4 Out 4 is	ENABLED
		VERIF I	ACK sees C2DI/O-4 Out 4 Is	ON
		CLOSE	CO2 Room to Vestibule 2 gate, CV2G1	
		VERIFY	CV2G1	CLOSED
		CLOSE	Exit from CO2 Amp Room gate, ECG1	
		VERIFY	ECG1	CLOSED
		CLOSE	Exit Vestibule 2 gate, EV2G1	
		VERIFY	EV2G1	CLOSED
	_	CLOSE	Fel Room to Vestibule 2 gate, FV2G1	CLOSED
		VERIFY	FV2G1	CLOSED
		VERIFY	CO2 Room Crash	OK
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VERIFY VERIFY	CO2 Room Blk I/O Atf Control Room Crash	OK OK
SWEEP VERIFY	C2R ACR sees CO2 Room	SWEEP GOOD
VERIFY VERIFY VERIFY VERIFY	ACR sees on OVP , Pri CD CO2 Laser Shutter CLS is Visually CLS is ACR sees on OVP , Pri CD Yag to CO2 Shutter YCS is Visually YCS is	ENABLED CLOSED ENABLED CLOSED
SWEEP VERIFY	YR ACR sees YR	SWEEP GOOD
VERIFY VERIFY	ACR sees on OVP , Rhb CD YLS is Visually YLS is	ENABLED CLOSED
VERIFY VERIFY VERIFY VERIFY	ACR sees C2BI/O-4 Out 6 is At C2R Main Panel CLS enabled led is ACR sees EHBI/O-4 Out 11 is At EH Main Panel CLS enabled led is	ON ON ON ON
VERIFY VERIFY VERIFY VERIFY VERIFY	ACR sees YRBI/O-4 Out 4 is At YR Main Panel YCS enabled led is ACR sees C2BI/O-4 Out 5 is At CO2 Main Panel YCS enabled led is ACR sees FRBI/O-3 Out 11 is At FR Main Panel YCS enabled led is	ON ON ON ON ON
VERIFY VERIFY VERIFY VERIFY VERIFY	ACR sees YRBI/O-4 Out 5 is At YR Main Panel YLS enabled led is ACR sees C2BI/O-3 Out 9 is At CO2 Main Panel YLS enabled led is ACR sees FRBI/O-3 Out 1 is At FR Main Panel YLS enabled led is	ON ON ON ON ON
OPEN VERIFY VERIFY VERIFY VERIFY VERIFY	CLS with key at ACR ACR sees C2BI/O-4 Out 2 is Visually CLS is ACR sees for key in Open posn ACRBI/O-2 In 13 is ACR sees for CLS OPEN on OVP C2BI/O-2 In 3 is ACR sees EHBI/O-3 Out 14 is At EH Main Panel C2OLS Open led is	ON OPEN ON ON ON
CLOSE VERIFY VERIFY VERIFY VERIFY	CLS with key at ACR Visually CLS is ACR sees for key in Closed posn. ACRBI/O-2 In 13 is ACR sees for CLS CLOSED on OVP C2BI/O-2 In 4 is ACR sees EHBI/O-3 Out 15 is At EH Main Panel CLS Closed led is	CLOSED OFF ON ON ON
OPEN VERIFY VERIFY CLOSE	CLS with key at C2R ACR sees for key in Open posn C2BI/O-2 In 9 is ACR sees on OVP CLS is CLS with key at C2R	ON OPEN

VERIFY VERIFY	ACR sees for key in Closed posn C2BI/O-2 In 9 is ACR sees on OVP CLS is	OFF CLOSED
OPEN VERIFY VERIFY VERIFY VERIFY VERIFY VERIFY	YCS with key at ACR ACR sees C2BI/O-5 Out 1 is Visually YCS is ACR sees for key in Open posn ACRBI/O In 2 is ACR sees C2BI/O-3 Out 12 is At CO2 Main Panel YCS Open led is ACR sees FRBI/O-2 Out 12 is At FR Main Panel YCS Open led is	ON OPEN ON ON ON ON ON
CLOSE VERIFY VERIFY VERIFY VERIFY VERIFY VERIFY	YCS with key at ACR ACR sees C2BI/O-5 Out 1 is Visually YCS is ACR sees for key in Closed posn ACRBI/O In 2 is ACR sees for YCS CLOSED on OVP YRBI/O In 5 is ACR sees C2BI/O-3 Out 13 is At CO2 Main Panel YCS Closed led is ACR sees FRBI/O-2 Out 13 is At FR Main Panel YCS Closed led is	OFF CLOSED OFF ON ON ON ON
OPEN VERIFY VERIFY CLOSE VERIFY	YCS with key at YR ACR sees for key in Open posn YRBI/O In 9 is ACR sees on OVP YCS is YCS with key at YR ACR sees for key in Closed posn YRBI/O In 9 is ACR sees on OVP YCS is	ON OPEN OFF CLOSED
OPEN VERIFY VERIFY CLOSE VERIFY VERIFY	YCS with key at C2R ACR sees for key in Open posn C2BI/O-2 In 10 is ACR sees on OVP YCS is YCS with key at C2R ACR sees for key in Closed posn C2BI/O-2 In 10 is ACR sees on OVP YCS is	ON OPEN OFF CLOSED
OPEN VERIFY VERIFY CLOSE VERIFY VERIFY	YCS with key at FR ACR sees for key in Open posn FRBI/O In 7 is ACR sees on OVP YCS is YCS with key at FR ACR sees for key in Closed posn FRBI/O In 7 is ACR sees on OVP YCS is	ON OPEN OFF CLOSED
OPEN VERIFY VERIFY VERIFY VERIFY VERIFY	YLS with key at ACR ACR sees YRBI/O-4 Out 13 is Visually YLS is ACR sees for key in Open posn. ACRBI/O In 11 is ACR sees for YLS OPEN on OVP YRBI/O-2 In 6 is ACR sees FRBI/O-3 Out 8 is At FR Main Panel YLS Open led is	ON OPEN ON ON ON
CLOSE VERIFY VERIFY	YLS with key at ACR ACR sees YRBI/O-4 Out 13 is Visually YLS is	OFF CLOSED

	VERIFY	ACR sees for key in Closed posn. ACRBI/O In 11 is	OFF
	VERIFY	ACR sees for YLS CLOSED on OVP YRBI/O-2 In 7 is	ON
	VERIFY	ACR sees FRBI/O-3 Out 9 is	ON
	VERIFY	At FR Main Panel YLS Closed led is	ON
	OPEN	YLS with key at YR	
	VERIFY	ACR sees for key in Open posn YRBI/O In 13 is	ON
П	VERIFY	ACR sees on OVP YLS is	OPEN
	CLOSE	YLS with key at YR	0121
	VERIFY	ACR sees for key in Closed posn YRBI/O In 13 is	OFF
	VERIFY	ACR sees on OVP YLS is	CLOSED
	OPEN	YLS with key at C2R	
	VERIFY	ACR sees for key in Open posn C2BI/O-2 In 8 is	ON
	VERIFY	ACR sees on OVP YLS is	OPEN
	CLOSE	YLS with key at C2R	
	VERIFY	ACR sees for key in Closed posn C2BI/O-2 In 8 is	OFF
	VERIFY	ACR sees on OVP YLS is	CLOSED
	OPEN	YLS with key at FR	
	VERIFY	ACR sees for key in Open posn FRBI/O In 11 is	ON
	VERIFY	ACR sees on OVP YLS is	OPEN
	CLOSE	YLS with key at FR	
	VERIFY	ACR sees for key in Closed posn FRBI/O In 11 is	OFF
		eptance of test to Verify conditions for Normal State for CO2 Roomer shutter (CLS) and Rhb CD, CO2 Osc Power Supply (CLPS) Ena	

Verify conditions for Normal State for Exp Hall (EH): Pri CDs: EH Laser Shutter (ELS); CO2 to EH 1.3 Shutter (CES) and Fel to BL3 Shutter (BL3S) and Rhb CDs: EH Laser Power supplies (ELPS); Fel Laser Shutter (FLS); Yag to Fel Shutter (YFS) and CO2 to Fel Shutter (CFS) Enabled

	SET	EH Sweep	NG SWEEP
	VERIFY	ACR sees EH Sweep is	NG SWEEP
	SET	C2R Sweep	NG SWEEP
	VERIFY	ACR sees C2R Sweep is	NG SWEEP
	SET	FR Sweep	NG SWEEP
	VERIFY	ACR sees FR Sweep is	NG SWEEP
	SET	YR Sweep	NG SWEEP
	VERIFY	ACR sees YR Sweep is	NG SWEEP
	VERIFY	ACR sees on OVP Pri CDs: ELS □; CLS □ and FLS □	DISABLED
	VERIFY	Visually ELS □; CLS □ and FLS □ are	CLOSED
	VERIFY	Attempt to open ELS □; CLS □ and FLS □ with Shutter keys in ACR	FAIL
	SET	ELS, CLS and FLS Shutter keys in Closed position	
	VERIFY	ELS □; CLS □ and FLS □ Shutter key position is	CLOSED
	VERIFY	ACR sees on OVP Room to Room Shutters (RRS): CES \Box ; BL3S \Box ;	
		YFS \square and CFS \square	ENABLED
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	VERIFY VERIFY	Visually CES □; BL3S □; YFS □ and CFS □ are Attempt to open CES □; BL3S □; YFS □ and CFS □ with Shutter	CLOSED
П		keys in ACR	SUCCESSFUL
	SET VERIFY	CES , BL3S , YFS and CFS Shutter keys in Closed position ELS □; CLS □ and FLS □ Shutter key position is	CLOSED
	VERIFY	EH SOR is	ON
	VERIFY	ACR sees on OVP Rhb CD Exp Hall Power Supply (ELPS) is	ENABLED
	CLOSE	Fel Room to Exp Hall gate, FHG1	CI OGED
	VERIFY CLOSE	FHG1 Exit Exp Hall gate 1, EHG1	CLOSED
	VERIFY	EHG1	CLOSED
	CLOSE VERIFY	Exit Exp Hall gate 2, EHG2 EHG2	CLOSED
	VERIFY	Exp Hall Crash	OK
	VERIFY	Exp Hall Blk I/O	OK OK
	VERIFY SWEEP	Atr Control Room Crash EH	OK
	VERIFY	ACR sees EH	SWEEP GOOD
	VERIFY	ACR sees on OVP Pri CD Exp Hall Laser Shutter (ELS) is	ENABLED
	VERIFY	Visually ELS is	CLOSED
	SWEEP	C2R	
	VERIFY	ACR sees C2R	SWEEP GOOD
	VERIFY	ACR sees on OVP Rhb CD CO2 Laser Shutter (CLS) is	ENABLED
	VERIFY	Visually CLS is	CLOSED
	VERIFY VERIFY	ACR sees on OVP RRS CO2 to FEL Shutter (CFS) is Visually CFS is	DISABLED CLOSED
			CLOSLD
	SWEEP VERIFY	FR ACR sees FR	SWEEP GOOD
	VERIFY	ACR sees on OVP Rhb CD FEL Laser Shutter (FLS) is	ENABLED
	VERIFY	Visually FLS is	CLOSED
	VERIFY	ACR sees on OVP RRS CO2 to FEL Shutter (CFS) is	ENABLED
	VERIFY VERIFY	Visually CFS is ACR sees on OVP RRS FEL to BL3 Shutter (BL3S) remain	CLOSED ENABLED
	VERIFY	Visually BL3S remain	CLOSED
	VERIFY	ACR sees C2BI/O-4 Out 6 is	ON
	VERIFY	At C2R Main Panel CLS enabled led is	ON
	VERIFY	ACR sees EHBI/O-4 Out 11 is	ON
	VERIFY	At EH Main Panel CLS enabled led is	ON
	VERIFY	ACR sees FRBI/O-5 Out 6 is	ON
	VERIFY	At FR Main Panel FLS enabled led is	ON
	VERIFY	ACR sees C2BI/O-3 Out 10 is	ON
	VERIFY	At C2R Main Panel CES enabled led is	ON

	VERIFY	ACR sees EHBI/O-2 Out 10 is	ON
	VERIFY	At EH Main Panel CES enabled led is	ON
	VERIFY	ACR sees FRBI/O-5 Out 7 is	ON
	VERIFY	At FR Main Panel BL3S enabled led is	ON
	VERIFY	ACR sees EHBI/O-4 Out 0 is	ON
П	VERIFY	At EH Main Panel BL3S enabled led is	ON
	, 22122 2	110 212 1/14th 1 41101 2/200 Chino100 100 10	011
	VERIFY	ACR sees YRBI/O-4 Out 3 is	ON
	VERIFY	At YR Main Panel YFS enabled led is	ON
	VERIFY	ACR sees FRBI/O-3 Out 10 is	ON
	VERIFY	At FR Main Panel YFS enabled led is	ON
	VERIFY	ACR sees EHBI/O-4 Out 9 is	ON
	VERIFY	At EH Main Panel YFS enabled led is	ON
	VERIFY	ACR sees C2BI/O-3 Out 11 is	ON
	VERIFY	At C2R Main Panel CFS enabled led is	ON
Ш	V LIXIF I	At C2R Wall I aller CF5 chabled Ru is	OIV
	OPEN	ELS with key at EH	
	VERIFY	ACR sees EHBI/O-4 Out 6 is	ON
	VERIFY	Visually ELS is	OPEN
	VERIFY	ACR sees for key in Open posn EHBI/O-2 In 3 is	ON
	VERIFY	ACR sees for ELS OPEN on OVP EHBI/O-2 In 2 is	ON
	CLOSE	ELS with key at EH	
	VERIFY	ACR sees EHBI/O-4 Out 6 is	OFF
	VERIFY	Visually ELS is	CLOSED
	VERIFY	ACR sees for key in Closed posn EHBI/O-2 In 3 is	OFF
	VERIFY	ACR sees for ELS CLOSED on OVP EHBI/O In 1 is	ON
Ш	V LIKIT I	THE SECS FOI ELS CLOSED ON OVI ENDIO IN 1 IS	011
	OPEN	CLS with key at ACR	
	VERIFY	ACR sees C2BI/O-4 Out 2 is	ON
	VERIFY	Visually CLS is	OPEN
	VERIFY	ACR sees for key in Open posn ACRBI/O In 13 is	ON
	VERIFY	ACR sees for CLS OPEN on OVP C2BI/O-2 In 3 is	ON
	VERIFY	ACR sees EHBI/O-3 Out 14 is	ON
	VERIFY	At EH Main Panel CLS Open led is	ON
	CLOSE	CLS with key at ACR	
	VERIFY	ACR sees C2BI/O-4 Out 2 is	OFF
	VERIFY	Visually CLS is	CLOSED
	VERIFY	ACR sees for key in Closed posn ACRBI/O In 13 is	OFF
	VERIFY	ACR sees for CLS CLOSED on OVP C2BI/O-2 In 4 is	ON
	VERIFY	ACR sees EHBI/O-3 Out 15 is	ON
	VERIFY	At EH Main Panel CLS Closed led is	ON
	OPEN	CLS with key at C2R	
	VERIFY	ACR sees for key in Open posn C2BI/O-2 In 9 is	ON
	VERIFY	ACR sees on OVP CLS is	OPEN
	CLOSE	CLS with key at C2R	
	VERIFY	ACR sees for key in Closed posn C2BI/O-2 In 9 is	OFF
	VERIFY	ACR sees on OVP CLS is	CLOSED
	OPEN	FLS with key at ACR	
		•	

VERIFY VERIFY VERIFY VERIFY	ACR sees FRBI/O-5 Out 3 is Visually FLS is ACR sees for key in Open posn ACRBI/O In 12 is ACR sees for FLS OPEN on OVP FRBI/O-4 In 2 is	ON OPEN ON ON
CLOSE VERIFY VERIFY VERIFY VERIFY	FLS with key at ACR ACR sees FRBI/O-5 Out 3 is Visually FLS is ACR sees for key in Closed posn ACRBI/O In 12 is ACR sees for FLS CLOSED on OVP FRBI/O-4 In 3 is	OFF CLOSED OFF ON
OPEN VERIFY VERIFY CLOSE VERIFY VERIFY	FLS with key at FR ACR sees for key in Open posn FRBI/O-4 In 4 is ACR sees on OVP FLS is FLS with key at FR ACR sees for key in Closed posn FRBI/O-4 In 4 is ACR sees on OVP FLS is	ON OPEN OFF CLOSED
OPEN VERIFY VERIFY VERIFY VERIFY VERIFY	CES with key at ACR ACR sees C2BI/O-3 Out 1 is Visually CES is ACR sees for key in Open posn ACRBI/O In 6 is ACR sees for CES OPEN on OVP C2BI/O In 14 is ACR sees EHBI/O-3 Out 11 is At EH Main Panel CES Open led is	ON OPEN ON ON ON
CLOSE VERIFY VERIFY VERIFY VERIFY VERIFY	CES with key at ACR ACR sees C2BI/O-3 Out 1 is Visually CES is ACR sees for key in Closed posn ACRBI/O In 6 is ACR sees for CES CLOSED on OVP C2BI/O In 15 is ACR sees EHBI/O-3 Out 13 is At EH Main Panel CES ClosedC2BI/O In 14 led is	OFF CLOSED OFF ON ON
OPEN VERIFY VERIFY CLOSE VERIFY VERIFY	CES with key at C2R ACR sees for key in Open posn C2BI/O-2 In 6 is ACR sees on OVP CES is CES with key at C2R ACR sees for key in Closed posn C2BI/O-2 In 6 is ACR sees on OVP CES is	ON OPEN OFF CLOSED
OPEN VERIFY VERIFY CLOSE VERIFY VERIFY	CES with key at EH ACR sees for key in Open posn EHBI/O In 11 is ACR sees on OVP CES is CES with key at EH ACR sees for key in Closed posn EHBI/O In 11 is ACR sees on OVP CES is	ON OPEN OFF CLOSED
OPEN VERIFY VERIFY VERIFY VERIFY	BL3S with key at ACR ACR sees FRBI/O-5 Out 2 is Visually BL3S is ACR sees for key in Open posn ACRBI/O In 10 is ACR sees for BL3S OPEN on OVP FRBI/O-4 In 0 is ACR sees FRBI/O-3 Out 2 is	ON OPEN ON ON

	VERIFY	At FR Main Panel BL3S Open led is	ON
	CLOSE	BL3S with key at ACR	
	VERIFY	ACR sees FRBI/O-5 Out 2 is	OFF
	VERIFY	Visually BL3S is	CLOSED
	VERIFY	ACR sees for key in Closed posn ACRBI/O In 10 is	OFF
	VERIFY	ACR sees for BL3S CLOSED on OVP FRBI/O-4 In 1 is	ON
	VERIFY	ACR sees FRBI/O-3 Out 3 is	ON
	VERIFY	At FR Main Panel BL3S Closed led is	ON
	OPEN	BL3S with key at FR	
	VERIFY	ACR sees for key in Open posn FRBI/O In 12 is	ON
	VERIFY	ACR sees on OVP BL3S is	OPEN
	CLOSE	BL3S with key at FR	
	VERIFY	ACR sees for key in Closed posn FRBI/O In 12 is	OFF
	VERIFY	ACR sees on OVP BL3S is	CLOSED
	OPEN	BL3S with key at EH	
	VERIFY	ACR sees for key in Open posn EHBI/O In 12 is	ON
	VERIFY	ACR sees on OVP BL3S is	OPEN
	CLOSE	BL3S with key at EH	0.77
	VERIFY	ACR sees for key in Closed posn EHBI/O In 12 is	OFF
	VERIFY	ACR sees on OVP BL3S is	CLOSED
_	OPEN	YFS with key at ACR	ON
	VERIFY	ACR sees FRBI/O-5 Out 5 is	ON
	VERIFY	Visually YFS is ACP cost for key in Open post ACP BL/O In 1 is	OPEN ON
	VERIFY VERIFY	ACR sees for key in Open posn ACRBI/O In 1 is ACR sees for YFS OPEN on OVP FRBI/O-4 In 5 is	ON ON
	VERIFY	ACR sees FRBI/O-2 Out 10 is	ON ON
	VERIFY	At FR Main Panel YFS Open led is	ON
	VERIFY	ACR sees YRBI/O-5 Out 3 is	ON
	VERIFY	At YR Main Panel YFS Open led is	ON
	VERIFY	ACR sees EHBI/O-4 Out 1 is	ON
	VERIFY	At EH Main Panel YFS Open led is	ON
	CLOSE	YFS with key at ACR	
	VERIFY	ACR sees FRBI/O-5 Out 5 is	OFF
	VERIFY	Visually YFS is	CLOSED
	VERIFY	ACR sees for key in Closed posn ACRBI/O In 1 is	OFF
	VERIFY	ACR sees for YFS CLOSED on OVP FRBI/O-4 In 6 is	ON
	VERIFY	ACR sees YRBI/O-5 Out 4 is	ON
	VERIFY	At YR Main Panel YFS Closed led is	ON
	VERIFY	ACR sees EHBI/O-4 Out 2 is	ON
	VERIFY	At EH Main Panel YFS Closed led is	ON
	OPEN	YFS with key at YR	0.55
	VERIFY	ACR sees for key in Open posn YRBI/O In 8 is	ON
	VERIFY	ACR sees on OVP YFS is	OPEN
	CLOSE	YFS with key at YR ACP cost for key in Closed post YPPI/O In 8 is	OFF
	VERIFY VERIFY	ACR sees for key in Closed posn YRBI/O In 8 is ACR sees on OVP YFS is	OFF CLOSED
J			J 3,222
	OPEN	YFS with key at FR	

	CLUSE	rrs with key at rr	
	VERIFY	ACR sees for key in Closed posn FRBI/O In 10 is	OFF
	VERIFY	ACR sees on OVP YFS is	CLOSED
	ODEN	VECd. I at EH	
_	OPEN	YFS with key at EH	ON
	VERIFY	ACR sees for key in Open posn EHBI/O In 10 is	ON
	VERIFY	ACR sees on OVP YFS is	OPEN
_	CLOSE	YFS with key at EH	OFF
	VERIFY	ACR sees for key in Closed posn EHBI/O In 10 is	OFF
	VERIFY	ACR sees on OVP YFS is	CLOSED
	OPEN	CFS with key at ACR	
	VERIFY	ACR sees C2BI/O-4 Out 3 is	ON
	VERIFY	Visually CFS is	OPEN
	VERIFY	ACR sees for key in Open posn ACRBI/O In 7 is	ON
	VERIFY	ACR sees for CFS OPEN on OVP C2BI/O-2 In 0 is	ON
	VERIFY	ACR sees FRBI/O-2 Out 7 is	ON
	VERIFY	At FR Main Panel CFS Open led is	ON
	CLOSE	CFS with key at ACR	
	VERIFY	ACR sees C2RBI/O-4 Out 3 is	OFF
	VERIFY	Visually CFS is	CLOSED
	VERIFY	ACR sees for key in Closed posn ACRBI/O In 7 is	OFF
	VERIFY	ACR sees for CFS CLOSED on OVP C2BI/O-2 In 1 is	ON
	VERIFY	ACR sees FRBI/O-2 Out 8 is	ON
	VERIFY	Ack sees FRB1/0-2 Out o is At FR Main Panel CFS Closed led is	ON
	VENIT I	At FR Iviani Fanci CF3 Closed led is	ON
	OPEN	CFS with key at C2R	
	VERIFY	ACR sees for key in Open posn C2BI/O-2 In 7 is	ON
	VERIFY	ACR sees on OVP CFS is	OPEN
	CLOSE	CFS with key at C2R	
	VERIFY	ACR sees for key in Closed posn C2BI/O-2 In 7 is	OFF
	VERIFY	ACR sees on OVP CFS is	CLOSED
	OPEN	CFS with key at FR	
	VERIFY	ACR sees for key in Open posn FRBI/O In 8 is	ON
	VERIFY	ACR sees on OVP CFS is	OPEN
	CLOSE	CFS with key at FR	
	VERIFY	ACR sees for key in Closed posn FRBI/O In 8 is	OFF
	VERIFY	ACR sees on OVP CFS is	CLOSED
		ACR sees on OVP CFS is itions for Normal State for Exp Hall (EH): Pri CDs: EH Laser S	
	-	<u>-</u>	

ACR sees for key in Open posn FRBI/O In 10 is

ACR sees on OVP **YFS** is **YFS** with key at **FR**

□ VERIFY

□ VERIFY

CLOSE

EH Shutter (CES) and Fel to BL3 Shutter (BL3S) and Rhb CDs: EH Laser Power supplies (ELPS); Fel Laser Shutter (FLS); Yag to Fel Shutter (YFS) and CO2 to Fel Shutter (CFS) Enabled

ON

OPEN

Verify conditions for Normal State for Gun Hutch (GH): Pri CD, Yag to Gun Shutter (YGS) and Rhb CD, Yag Laser Shutter (YLS) Enabled 1.4

	SET VERIFY SET VERIFY	GH Sweep ACR sees GH Sweep is YR Sweep ACR sees YR Sweep is	NG :	SWEEP SWEEP SWEEP SWEEP
	VERIFY	ACR sees on OVP Room to Room Shutter YGS is	ENA	ABLED
	VERIFY VERIFY VERIFY SET VERIFY	Visually YGS is Attempt to open YGS with Shutter key in ACR Visually YGS is YGS Shutter key in Closed position YGS Shutter key position is	SUC OPE	OSED CCESSFUL CN OSED
	VERIFY	ACR sees on OVP Local Shutter YLS is	DISA	ABLED
	VERIFY VERIFY SET VERIFY	Visually YLS is Attempt to open YLS with Shutter key in ACR YLS Shutter key in Closed position YLS Shutter key position is	FAI	OSED L OSED
	CLOSE VERIFY CLOSE VERIFY CLOSE VERIFY CLOSE	Gun Hutch to Vestibule 1 gate, GV1G1 GV1G1 Exit Vestibule 1 gate, EV1G1 EV1G1 Yag Room to Vestibule 1 gate, YV1G1 YV1G1 Laser Lab to Vestibule 1 gate, LV1G1	CLC	OSED OSED OSED
	VERIFY	LV1G1	CLC	OSED
	VERIFY	GH SOR is	ON	
	VERIFY VERIFY SWEEP VERIFY SWEEP VERIFY	Gun Hutch Crash Gun Hutch Blk I/O Atf Control Room Crash GH ACR sees GH YR ACR sees YR		EEP GOOD
	VERIFY VERIFY	ACR sees on OVP Pri CD, Yag to Gun Shutter (YG Visually YGS is		ABLED OSED
	VERIFY VERIFY VERIFY	ACR sees GHBI/O-2 Out 9 is ACR sees YRBI/O-4 Out 1 is At YR Main Panel YGS enabled led is	ON ON ON	
	VERIFY	ACR sees YR	SWI	EEP GOOD
	VERIFY VERIFY	ACR sees on OVP Rhb CD, Yag Laser Shutter (YLS Visually YLS is		ABLED OSED
-OPI	OPEN M-ATT 4.120	YGS with key at ACR 1.124.j.a 16	Rev	ision 01

	VERIFY VERIFY	Visually YGS is ACR sees YRBI/O-4 Out 10 is	OPEN ON
	VERIFY	ACR sees for key in Open posn ACRBI/O In 0 is	ON
	VERIFY	ACR sees for YGS OPEN on OVP YRBI/O-2 In 0 is	ON
	VERIFY	ACR sees GHBI/O-2 Out 7 is	ON
	VERIFY	At GH Main Panel YGS Open led is	ON
	CLOSE	YGS with key at ACR	
	VERIFY	Visually YGS is	CLOSED
	VERIFY	ACR sees for key in Closed posn. ACRBI/O In 0 is	OFF
	VERIFY	ACR sees for YGS CLOSED on OVP YRBI/O-2 In 1 is	ON
	VERIFY	ACR sees GHBI/O-2 Out 8 is	ON
	VERIFY	At GH Main Panel YGS Closed led is	ON
	OPEN	YGS with key at GH	
	VERIFY	ACR sees for key in Open posn GHBI/O In 7 is	ON
	VERIFY	ACR sees on OVP YGS is	OPEN
_	CLOSE	YGS with key at GH	OFF
	VERIFY	ACR sees for key in Closed posn GHBI/O In 7 is	OFF
	VERIFY	ACR sees on OVP YGS is	CLOSED
	OPEN	YGS with key at YR	
	VERIFY	ACR sees for key in Open posn YRBI/O In 7 is	ON
	VERIFY	ACR sees on OVP YGS is	OPEN
_	CLOSE	YGS with key at YR	OFF
	VERIFY	ACR sees for key in Closed posn YRBI/O In 7 is	OFF
	VERIFY	ACR sees on OVP YGS is	CLOSED
	OPEN	YLS with key at ACR	
	VERIFY	ACR sees YRBI/O-4 Out 13 is	ON
	VERIFY	Visually YLS is	OPEN
	VERIFY	ACR sees for key in Open posn. ACRBI/O In 11 is	ON
	VERIFY	ACR sees for YLS OPEN on OVP YRBI/O-2 In 6 is	ON
	VERIFY	ACR sees FRBI/O-3 Out 8 is	ON
	VERIFY	At FR Main Panel YLS Open led is	ON
	CLOSE	YLS with key at ACR	ar 0 arr
	VERIFY	Visually YLS is	CLOSED
	VERIFY	ACR sees for key in Closed posn. ACRBI/O In 11 is	OFF
	VERIFY	ACR sees for YLS CLOSED on OVP YRBI/O-2 In 7 is ACR sees FRBI/O-3 Out 9 is	ON
	VERIFY VERIFY	Ack sees FRB1/0-3 Out 9 is At FR Main Panel YLS Closed led is	ON ON
	VERIF 1	At FR Iviani Faner 1 LS Closed led is	ON
	OPEN	YLS with key at YR	
	VERIFY	ACR sees for key in Open posn YRBI/O In 13 is	ON
	VERIFY	ACR sees on OVP YLS is	OPEN
_	CLOSE	YLS with key at YR	OFF
	VERIFY	ACR sees for key in Closed posn YRBI/O In 13 is	OFF
	VERIFY	ACR sees on OVP YLS is	CLOSED
	OPEN	YLS with key at C2R	• -
	VERIFY	ACR sees for key in Open posn C2BI/O-2 In 8 is	ON
	VERIFY	ACR sees on OVP YLS is	OPEN
	CLOSE	YLS with key at C2R	

VERIFY VERIFY	ACR sees for key in Closed posn C2BI/O-2 In 8 is ACR sees on OVP YLS is	OFF CLOSED
OPEN VERIFY VERIFY CLOSE	YLS with key at FR ACR sees for key in Open posn FRBI/O In 11 is ACR sees on OVP YLS is YLS with key at FR	ON OPEN
VERIFY VERIFY	ACR sees for key in Closed posn FRBI/O In 11 is ACR sees on OVP YLS is	OFF CLOSED
	eptance of test to Verify conditions for Normal State for Gun Hutch (outter (YGS) and Rhb CD, Yag Laser Shutter (YLS) Enabled	GH): Pri CD,

1.5 Verify conditions for Normal State for Laser Lab (LL): Pri CDs: Laser Lab Shutter (LLS); Yag to Laser Lab Shutter 1(LY1S) and Rhb CDs: Yag Laser Shutter (YLS) and LL Laser Power Supply (LLPS) Enabled

SET VERIFY SET VERIFY	LL Sweep ACR sees LL Sweep is YR Sweep ACR sees YR Sweep is	NG SWEEP NG SWEEP NG SWEEP NG SWEEP
VERIFY	ACR sees on OVP Local Shutters: LLS \square and Rhb CD YLS \square are	DISABLED
VERIFY VERIFY SET VERIFY	Visually LLS □ and YLS □ are Attempt to open LLS □ and YLS □ with Shutter keys in ACR LLS and YLS Shutter key in Closed position in ACR LLS □ and YLS □ Shutter key position is	CLOSED FAIL CLOSED
VERIFY	ACR sees on OVP Room to Room Shutter LY1S is	ENABLED
VERIFY VERIFY VERIFY SET VERIFY	Visually LY1S is Attempt to open LY1S with Shutter keys in ACR Visually LY1S is LY1S Shutter key in Closed position in ACR LY1S Shutter key position is	CLOSED SUCCESSFUL OPEN CLOSED
VERIFY	LL SOR is	ON
VERIFY VERIFY	ACR sees on OVP Rhb CD Laser Lab Laser Power Supply (LLPS) is ACR sees LLBI/O-4 Out 0 is	ENABLED ON
CLOSE VERIFY CLOSE VERIFY CLOSE VERIFY CLOSE	Yag Room to Laser Lab gate, YLG1 YLG1 Laser Lab to Vestibule 1 gate, LV1G1 LV1G1 Exit Vestibule 1 gate, EV1G1 EV1G1 Yag Room to Vestibule 1 gate, YV1G1	CLOSED CLOSED

VERIFY	YV1G1	CLOSED
CLOSE VERIFY	Gun Hutch to Vestibule 1 gate, GV1G1 GV1G1	CLOSED
CLOSE VERIFY CLOSE	Exit Laser Lab gate 1, ELG1 ELG1 Exit Laser Lab gate 2, ELG2	CLOSED
VERIFY	ELG2	CLOSED
VERIFY VERIFY VERIFY	Laser Lab Crash Laser Lab Blk I/O ACR Crash	OK OK OK
SWEEP VERIFY	LL ACR sees LL	SWEEP GOOD
VERIFY VERIFY VERIFY	ACR sees on OVP Pri CD Laser lab Laser Shutter, LLS , is Visually LLS is ACR sees on OVP Pri CD Yag to Laser Lab Shutter 1 Shutter, LY1S ,	ENABLED CLOSED
VERIFY	is Visually LY1S is	ENABLED CLOSED
SWEEP VERIFY	YR ACR sees YR	SWEEP GOOD
VERIFY VERIFY	ACR sees on OVP Pri CD Yag Laser Shutter, YLS , is Visually YLS is	ENABLED CLOSED
VERIFY VERIFY VERIFY VERIFY	ACR sees YRBI/O-4 Out 9 is At YR Main Panel LLS enabled led is ACR sees LLBI/O-3 Out 11 is At LL Main Panel LLS enabled led is	ON ON ON ON
VERIFY VERIFY VERIFY VERIFY	ACR sees LLBI/O-3 Out 7 is At LL Main Panel LY1S enabled led is ACR sees YRBI/O-4 Out 0 is At YR Main Panel LY1S enabled led is	ON ON ON ON
VERIFY VERIFY VERIFY VERIFY VERIFY	ACR sees YRBI/O-4 Out 5 is At YR Main Panel YLS enabled led is ACR sees C2BI/O-3 Out 9 is At CO2 Main Panel YLS enabled led is ACR sees FRBI/O-3 Out 1 is At FR Main Panel YLS enabled led is	ON ON ON ON ON
OPEN VERIFY VERIFY VERIFY VERIFY VERIFY	LLS with key at ACR ACR sees LLBI/O-4 Out 4 is Visually LLS is ACR sees for key in Open posn. ACRBI/O-2 In 0 is ACR sees for LLS OPEN on OVP LLBI/O-2 In 1 is ACR sees YRBI/O-3 Out 13 is At YR Main Panel LLS Open led is	ON OPEN ON ON ON
CLOSE VERIFY VERIFY	LLS with key at ACR ACR sees LLBI/O-4 Out 4 is Visually LLS is	OFF CLOSED

VERIFY VERIFY VERIFY VERIFY	ACR sees for key in Closed posn. ACRBI/O-2 In 0 is ACR sees for LLS CLOSED on OVP LLBI/O-2 In 2 is ACR sees YRBI/O-3 Out 14 is At YR Main Panel LLS Closed led is	OFF ON ON ON
OPEN VERIFY VERIFY CLOSE VERIFY VERIFY	LLS with key at YR ACR sees for key in Open posn YRBI/O In ?? is ACR sees on OVP LLS is LLS with key at YR ACR sees for key in Closed posn YRBI/O In ?? is ACR sees on OVP LLS is	ON OPEN OFF CLOSED
OPEN VERIFY VERIFY CLOSE VERIFY VERIFY	LLS with key at LL ACR sees for key in Open posn LLBI/O-2 In 3 is ACR sees on OVP LLS is LLS with key at LL ACR sees for key in Closed posn LLBI/O-2 In 3 is ACR sees on OVP LLS is	ON OPEN OFF CLOSED
OPEN VERIFY VERIFY VERIFY VERIFY	LY1S with key at ACR Visually LY1S is ACR sees for key in Open posn ACRBI/O In 3 is ACR sees for LY1S OPEN on OVP LLBI/O In 11 is ACR sees YRBI/O-3 Out 11 is At YR Main Panel LY1S Open led is	OPEN ON ON ON
CLOSE VERIFY VERIFY VERIFY VERIFY	LY1S with key at ACR Visually LY1S is ACR sees for key in Closed posn ACRBI/O In 3 is ACR sees for LY1S CLOSED on OVP LLBI/O In 12 is ACR sees YRBI/O-3 Out 12 is At YR Main Panel LY1S Closed led is	CLOSED OFF ON ON
OPEN VERIFY VERIFY CLOSE VERIFY VERIFY	LY1S with key at YR ACR sees for key in Open posn YRBI/O In 10 is ACR sees on OVP LY1S is LY1S with key at YR ACR sees for key in Closed posn YRBI/O In 10 is ACR sees on OVP LY1S is	ON OPEN OFF CLOSED
OPEN VERIFY VERIFY CLOSE VERIFY VERIFY	LY1S with key at LL ACR sees for key in Open posn LLBI/O In 7 is ACR sees on OVP LY1S is LY1S with key at LL ACR sees for key in Closed posn LLBI/O In 7 is ACR sees on OVP LY1S is	ON OPEN OFF CLOSED
OPEN VERIFY VERIFY VERIFY VERIFY VERIFY	YLS with key at ACR ACR sees YRBI/O-4 Out 13 is Visually YLS is ACR sees for key in Open posn. ACRBI/O In 11 is ACR sees for YLS OPEN on OVP YRBI/O-2 In 6 is ACR sees FRBI/O-3 Out 8 is At FR Main Panel YLS Open led is	ON OPEN ON ON ON

CLOSE	YLS with key at ACR	
VERIFY	Visually YLS is	CLOSED
VERIFY	ACR sees for key in Closed posn. ACRBI/O In 11 is	OFF
VERIFY	ACR sees for YLS CLOSED on OVP YRBI/O-2 In 7 is	ON
VERIFY	ACR sees FRBI/O-3 Out 9 is	ON
VERIFY	At FR Main Panel YLS Closed led is	ON
OPEN	YLS with key at YR	
VERIFY	ACR sees for key in Open posn YRBI/O In 13 is	ON
VERIFY	ACR sees on OVP YLS is	OPEN
CLOSE	YLS with key at YR	
VERIFY	ACR sees for key in Closed posn YRBI/O In 13 is	OFF
VERIFY	ACR sees on OVP YLS is	CLOSED
OPEN	YLS with key at C2R	
VERIFY	ACR sees for key in Open posn C2BI/O-2 In 8 is	ON
VERIFY	ACR sees on OVP YLS is	OPEN
CLOSE	YLS with key at C2R	
VERIFY	ACR sees for key in Closed posn C2BI/O-2 In 8 is	OFF
VERIFY	ACR sees on OVP YLS is	CLOSED
OPEN	YLS with key at FR	
VERIFY	ACR sees for key in Open posn FRBI/O In 11 is	ON
VERIFY	ACR sees on OVP YLS is	OPEN
CLOSE	YLS with key at FR	
VERIFY	ACR sees for key in Closed posn FRBI/O In 11 is	OFF
VERIFY	ACR sees on OVP YLS is	CLOSED
	ions for Normal State for Laser Lab (LL): Pri CDs: Laser Lab utter 1(LY1S) and Rhb CDs: Yag Laser Shutter (YLS) and LL	

1.6 Verify conditions for Normal State for Fel Room (FR): Pri CDS: Fel Laser shutter (FLS); CO2 to FR Shutter (CFS); Yag to Fel Shutter (YFS); BL1 to Fel Shutter (BL1S); BL2 to Fel Shutter (BL2S) and Rhb CDs: Fel Laser Power Supply (FLPS); CO2 Laser Shutter (CLS); Yag Laser Shutter (YLS); EH Laser Shutter (ELS); CO2 to EH Shutter (CES) and Yag to Gun Shutter (YGS) Enabled

(LLPS) Enabled

	SET	FR Sweep		NG SWEEP
	VERIFY	ACR sees FR Sweep is		NG SWEEP
	SET	EH Sweep		NG SWEEP
	VERIFY	ACR sees EH Sweep is		NG SWEEP
	SET	C2R Sweep		NG SWEEP
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		VERIFY SET	ACR sees C2R Sweep is YR Sweep	NG SWEEP NG SWEEP
		VERIFY	ACR sees YR Sweep is	NG SWEEP
		VERIFY	ACR sees on OVP Local Shutters: ELS \square , CLS \square , YLS \square and FLS \square	DISABLED
		VERIFY VERIFY	Visually ELS □, CLS □, YLS □ and FLS □ are Attempt to open ELS □, CLS □, YLS □ and FLS □ with Shutter keys	CLOSED FAIL
	ш		in ACR	FAIL
		SET VERIFY	ELS , CLS , YLS and FLS Shutter keys in Closed position ELS □, CLS □, YLS □ and FLS □ Shutter key position is	CLOSED
		VERIFY	ACR sees on OVP Room to Room Shutters (RRS): CFS \square ; BL1S \square ; BL2S \square ; YFS \square ; CES \square and YGS \square	ENABLED
		VERIFY	Visually CFS □; BL1S □; BL2S □; YFS □; CES □ and YGS □ are	CLOSED
		VERIFY	Attempt to open CFS □; BL1S □; BL2S □; YFS □; CES □ and YGS □ with Shutter keys in ACR	SUCCESSFUL
		VERIFY SET	Visually CFS □; BL1S □; BL2S □; YFS □; CES □ and YGS □ are CFS, BL1S, BL2S, YFS, CES and YGS Shutter keys in Closed	OPEN
		VERIFY	position CFS □; BL1S □; BL2S □; YFS □; CES □ and YGS □ Shutter key position is	CLOSED
		VERIFY	ACR sees on OVP Room to Room Shutters (RRS): CFS \square ; BL1S \square ;	ENABLED
		VERIFY	BL2S □; YFS □; CES □ and YGS □ Visually CFS □; BL1S □; BL2S □; YFS □; CES □ and YGS □ are	CLOSED
		VERIFY	FR SOR is	ON
		VERIFY	Rhb CD Fel Laser Power Supply (FLPS) is	ENABLED
		VERIFY	ACR sees FRBI/O-5 Out 4 is	ON
		CLOSE	Fel Room to Vestibule 2 gate, FV2G1	CLOSED
		VERIFY CLOSE	FV2G1 Fel Room to Exp Hall gate, FHG1	CLOSED
		VERIFY	FHG1	CLOSED
		CLOSE	Exit Vestibule 2 gate, EV2G1	
		VERIFY	EV2G1	CLOSED
		CLOSE VERIFY	CO2 Room to Vestibule 2 gate, CV2G1 CV2G1	CLOSED
		VERII I	C 1201	CLOSED
		VERIFY	Fel Room Crash	OK
		VERIFY	Fel Room Blk I/O	OK
		VERIFY	Atf Control Room Crash	OK
		SWEEP	FR	
		VERIFY	ACR sees FR	SWEEP GOOD
		VERIFY	ACR sees on OVP Pri CD FEL Laser Shutter (FLS) is	ENABLED
		VERIFY	Visually FLS is	CLOSED
		VERIFY	ACR sees on OVP RRS: CFS □; BL1S □; BL2S □; YFS □; CES □	
			and YGS □ remain	ENABLED
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SWEEP VERIFY	EH ACR sees EH	SWEEP GOOD
VERIFY VERIFY	ACR sees on OVP Rhb CD Exp Hall Laser Shutter (ELS) is Visually ELS is	ENABLED CLOSED
VERIFY	ACR sees on OVP RRS: CFS \square ; BL1S \square ; BL2S \square ; YFS \square ; CES \square and YGS \square remain	ENABLED
SWEEP VERIFY	C2R ACR sees C2R	SWEEP GOOD
VERIFY VERIFY	ACR sees on OVP Rhb CD CO2 Laser Shutter (CLS) is Visually CLS is	ENABLED CLOSED
VERIFY	ACR sees on OVP RRS: CFS \square ; BL1S \square ; BL2S \square ; YFS \square ; CES \square and YGS \square remain	ENABLED
SWEEP VERIFY	YR ACR sees YR	SWEEP GOOD
VERIFY VERIFY	ACR sees on OVP Rhb CD Yag Laser Shutter (YLS) is Visually YLS is	ENABLED CLOSED
VERIFY	ACR sees on OVP RRS: YGS	ENABLED
VERIFY	ACR sees on OVP RRS: CFS \square ; BL1S \square ; BL2S \square ; YFS \square and CES \square remain	ENABLED
VERIFY VERIFY	ACR sees FRBI/O-5 Out 6 is At FR Main Panel FLS enabled led is	ON ON
VERIFY VERIFY VERIFY VERIFY	ACR sees C2BI/O-4 Out 6 is At C2R Main Panel CLS enabled led is ACR sees EHBI/O-4 Out 11 is At EH Main Panel CLS enabled led is	ON ON ON ON
VERIFY VERIFY VERIFY VERIFY VERIFY	ACR sees YRBI/O-4 Out 5 is At YR Main Panel YLS enabled led is ACR sees C2BI/O-3 Out 9 is At CO2 Main Panel YLS enabled led is ACR sees FRBI/O-3 Out 1 is At FR Main Panel YLS enabled led is	ON ON ON ON ON
VERIFY VERIFY VERIFY VERIFY	ACR sees C2BI/O-3 Out 11 is At CO2 Main Panel CFS enabled led is ACR sees FRBI/O-3 Out 0 is At FR Main Panel CFS enabled led is	ON ON ON
VERIFY VERIFY VERIFY VERIFY	ACR sees YRBI/O-4 Out 3 is At YR Main Panel YFS enabled led is ACR sees FRBI/O-3 Out 10 is At FR Main Panel YFS enabled led is	ON ON ON ON

VERIFY VERIFY	ACR sees EHBI/O-4 Out 9 is At EH Main Panel YFS enabled led is	ON ON
VERIFY VERIFY	ACR sees FRBI/O-3 Out 14 is At FR Main Panel BL1S □ and BL2S □ enabled led is	ON ON
VERIFY VERIFY VERIFY VERIFY	ACR sees C2BI/O-3 Out 10 is At C2R Main Panel CES enabled led is ACR sees EHBI/O-2 Out 10 is At EH Main Panel CES enabled led is	ON ON ON ON
VERIFY VERIFY VERIFY VERIFY	ACR sees GHBI/O-2 Out 9 is At GH Main Panel YGS enabled led is ACR sees YRBI/O-4 Out 1 is At YR Main Panel YGS enabled led is	ON ON ON ON
OPEN VERIFY VERIFY VERIFY VERIFY	FLS with key at ACR ACR sees FRBI/O-5 Out 3 is Visually FLS is ACR sees for key in Open posn ACRBI/O In 12 is ACR sees for FLS OPEN on OVP FRBI/O-4 In 2 is	ON OPEN ON ON
CLOSE VERIFY VERIFY VERIFY	FLS with key at ACR ACR sees FRBI/O-5 Out 3 is Visually FLS is ACR sees for key in Closed posn ACRBI/O In 12 is ACR sees for FLS CLOSED on OVP FRBI/O-4 In 3 is	OFF CLOSED OFF ON
OPEN VERIFY VERIFY CLOSE VERIFY VERIFY	FLS with key at FR ACR sees for key in Open posn FRBI/O-4 In 4 is ACR sees on OVP FLS is FLS with key at FR ACR sees for key in Closed posn FRBI/O-4 In 4 is ACR sees on OVP FLS is	ON OPEN OFF CLOSED
OPEN VERIFY VERIFY VERIFY	ELS with key at EH ACR sees EHBI/O-4 Out 6 is Visually ELS is ACR sees for key in Open posn EHBI/O-2 In 3 is ACR sees for ELS OPEN on OVP EHBI/O-2 In 2 is	ON OPEN ON ON
CLOSE VERIFY VERIFY VERIFY	ELS with key at EH ACR sees EHBI/O-4 Out 6 is Visually ELS is ACR sees for key in Closed posn EHBI/O-2 In 3 is ACR sees for ELS CLOSED on OVP EHBI/O In 1 is	OFF CLOSED OFF ON
OPEN VERIFY VERIFY VERIFY VERIFY VERIFY	CLS with key at ACR ACR sees C2BI/O-4 Out 2 is Visually CLS is ACR sees for key in Open posn ACRBI/O In 13 is ACR sees for CLS OPEN on OVP C2BI/O-2 In 3 is ACR sees EHBI/O-3 Out 14 is At EH Main Panel CLS Open led is	ON OPEN ON ON ON

CLOSE VERIFY VERIFY VERIFY VERIFY VERIFY	CLS with key at ACR ACR sees C2BI/O-4 Out 2 is Visually CLS is ACR sees for key in Closed posn ACRBI/O In 13 is ACR sees for CLS CLOSED on OVP C2BI/O-2 In 4 is ACR sees EHBI/O-3 Out 15 is At EH Main Panel CLS Closed led is	OFF CLOSED OFF ON ON
OPEN VERIFY VERIFY CLOSE VERIFY VERIFY	CLS with key at C2R ACR sees for key in Open posn C2BI/O-2 In 9 is ACR sees on OVP CLS is CLS with key at C2R ACR sees for key in Closed posn C2BI/O-2 In 9 is ACR sees on OVP CLS is	ON OPEN OFF CLOSED
OPEN VERIFY VERIFY VERIFY VERIFY VERIFY	YLS with key at ACR ACR sees YRBI/O-4 Out 13 is Visually YLS is ACR sees for key in Open posn. ACRBI/O In 11 is ACR sees for YLS OPEN on OVP YRBI/O-2 In 6 is ACR sees FRBI/O-3 Out 8 is At FR Main Panel YLS Open led is	ON OPEN ON ON ON
CLOSE VERIFY VERIFY VERIFY VERIFY	YLS with key at ACR Visually YLS is ACR sees for key in Closed posn. ACRBI/O In 11 is ACR sees for YLS CLOSED on OVP YRBI/O-2 In 7 is ACR sees FRBI/O-3 Out 9 is At FR Main Panel YLS Closed led is	CLOSED OFF ON ON
OPEN VERIFY VERIFY CLOSE VERIFY VERIFY	YLS with key at YR ACR sees for key in Open posn YRBI/O In 13 is ACR sees on OVP YLS is YLS with key at YR ACR sees for key in Closed posn YRBI/O In 13 is ACR sees on OVP YLS is	ON OPEN OFF CLOSED
OPEN VERIFY VERIFY CLOSE VERIFY VERIFY	YLS with key at C2R ACR sees for key in Open posn C2BI/O-2 In 8 is ACR sees on OVP YLS is YLS with key at C2R ACR sees for key in Closed posn C2BI/O-2 In 8 is ACR sees on OVP YLS is	ON OPEN OFF CLOSED
OPEN VERIFY VERIFY CLOSE VERIFY VERIFY	YLS with key at FR ACR sees for key in Open posn FRBI/O In 11 is ACR sees on OVP YLS is YLS with key at FR ACR sees for key in Closed posn FRBI/O In 11 is ACR sees on OVP YLS is	ON OPEN OFF CLOSED
OPEN VERIFY	CFS with key at ACR Visually CFS is	OPEN

VERIFY VERIFY VERIFY VERIFY	ACR sees for key in Open posn ACRBI/O In 7 is ACR sees for CFS OPEN on OVP C2BI/O-2 In 0 is ACR sees FRBI/O-2 Out 7 is At FR Main Panel CFS Open led is	ON ON ON
CLOSE VERIFY VERIFY VERIFY VERIFY VERIFY	CFS with key at ACR Visually CFS is ACR sees for key in Closed posn ACRBI/O In 7 is ACR sees for CFS CLOSED on OVP YRBI/O-2 In 1 is ACR sees FRBI/O-2 Out 8 is At FR Main Panel CFS Closed led is Visual check for CFS in OPEN □ and CLOSED □	CLOSED OFF ON ON ON POSITIONS
OPEN VERIFY VERIFY CLOSE VERIFY VERIFY	CFS with key at C2R ACR sees for key in Open posn C2BI/O In 7 is ACR sees on OVP CFS is CFS with key at C2R ACR sees for key in Closed posn C2BI/O In 7 is ACR sees on OVP CFS is	ON OPEN OFF CLOSED
OPEN VERIFY VERIFY CLOSE VERIFY VERIFY	CFS with key at FR ACR sees for key in Open posn FRBI/O In 8 is ACR sees on OVP CFS is CFS with key at FR ACR sees for key in Closed posn FRBI/O In 8 is ACR sees on OVP CFS is	ON OPEN OFF CLOSED
OPEN VERIFY VERIFY VERIFY VERIFY VERIFY VERIFY VERIFY VERIFY VERIFY	YFS with key at ACR ACR sees FRBI/O-5 Out 5 is Visually YFS is ACR sees for key in Open posn ACRBI/O In 1 is ACR sees for YFS OPEN on OVP FRBI/O-4 In 5 is ACR sees FRBI/O-2 Out 10 is At FR Main Panel YFS Open led is ACR sees YRBI/O-5 Out 3 is At YR Main Panel YFS Open led is ACR sees EHBI/O-4 Out 1 is At EH Main Panel YFS Open led is	ON OPEN ON ON ON ON ON ON ON ON
CLOSE VERIFY	YFS with key at ACR ACR sees FRBI/O-5 Out 5 is Visually YFS is ACR sees for key in Closed posn ACRBI/O In 1 is ACR sees for YFS CLOSED on OVP FRBI/O-4 In 6 is ACR sees FRBI/O-2 Out 11 is At FR Main Panel YFS Closed led is ACR sees YRBI/O-5 Out 4 is At YR Main Panel YFS Closed led is ACR sees EHBI/O-4 Out 2 is At EH Main Panel YFS Closed led is	OFF CLOSED OFF ON ON ON ON ON ON ON
OPEN VERIFY VERIFY	YFS with key at YR ACR sees for key in Open posn YRBI/O In 8 is ACR sees on OVP YFS is	ON OPEN

CLOSE VERIFY VERIFY	YFS with key at YR ACR sees for key in Closed posn YRBI/O In 8 is ACR sees on OVP YFS is	OFF CLOSED
OPEN VERIFY VERIFY CLOSE VERIFY VERIFY	YFS with key at FR ACR sees for key in Open posn FRBI/O In 10 is ACR sees on OVP YFS is YFS with key at FR ACR sees for key in Closed posn FRBI/O In 10 is ACR sees on OVP YFS is	ON OPEN OFF CLOSED
OPEN VERIFY VERIFY CLOSE VERIFY	YFS with key at EH ACR sees for key in Open posn EHBI/O In 10 is ACR sees on OVP YFS is YFS with key at EH ACR sees for key in Closed posn EHBI/O In 10 is	ON OPEN OFF
OPEN VERIFY VERIFY VERIFY VERIFY VERIFY	BL1S with key at ACR ACR sees EHBI/O-4 Out 5 is Visually BL1S is ACR sees for key in Open posn ACRBI/O In 8 is ACR sees for BL1S OPEN on OVP EHBI/O-2 In 8 is ACR sees FRBI/O-3 Out 6 is At FR Main Panel BL1S Open led is	ON OPEN ON ON ON
CLOSE VERIFY VERIFY VERIFY VERIFY VERIFY	BL1S with key at ACR ACR sees EHBI/O-4 Out 5 is Visually BL1S is ACR sees for key in Closed posn ACRBI/O In 8 is ACR sees for BL1S CLOSED on OVP EHBI/O-2 In 9 is ACR sees FRBI/O-3 Out 7 is At FR Main Panel BL1S Closed led is	OFF CLOSED OFF ON ON
OPEN VERIFY VERIFY CLOSE VERIFY VERIFY	BL1S with key at FR ACR sees for key in Open posn FRBI/O In 13 is ACR sees on OVP BL1S is BL1S with key at FR ACR sees for key in Closed posn FRBI/O In 13 is ACR sees on OVP BL1S is	ON OPEN OFF CLOSED
OPEN VERIFY VERIFY VERIFY VERIFY VERIFY	BL2S with key at ACR ACR sees EHBI/O-4 Out 3 is Visually BL2S is ACR sees for key in Open posn ACRBI/O In 9 is ACR sees for BL2S OPEN on OVP EHBI/O-2 In 6 is ACR sees FRBI/O-3 Out 4 is At FR Main Panel BL2S Open led is	ON OPEN ON ON ON
CLOSE VERIFY VERIFY VERIFY VERIFY	BL2S with key at ACR ACR sees EHBI/O-4 Out 3 is Visually BL2S is ACR sees for key in Closed posn ACRBI/O In 9 is ACR sees for BL1S CLOSED on OVP EHBI/O-2 In 7 is ACR sees FRBI/O-3 Out 5 is	OFF CLOSED OFF ON ON

VERIFY	At FR Main Panel BL1S Closed led is	ON
OPEN VERIFY VERIFY CLOSE	BL2S with key at FR ACR sees for key in Open posn FRBI/O In 9 is ACR sees on OVP BL2S is BL2S with key at FR	ON OPEN
VERIFY VERIFY	ACR sees for key in Closed posn FRBI/O In 9 is ACR sees on OVP BL2S is	OFF CLOSED
OPEN VERIFY VERIFY CLOSE VERIFY VERIFY	BL2S with key at EH ACR sees for key in Open posn EHBI/O In 13 is ACR sees on OVP BL2S is BL2S with key at EH ACR sees for key in Closed posn EHBI/O In 13 is ACR sees on OVP BL2S is	ON OPEN OFF CLOSED
OPEN VERIFY VERIFY VERIFY VERIFY VERIFY	CES with key at ACR ACR sees C2BI/O-3 Out 1 is Visually CES is ACR sees for key in Open posn ACRBI/O In 6 is ACR sees for CES OPEN on OVP C2BI/O In 14 is ACR sees EHBI/O-3 Out 11 is At EH Main Panel CES Open led is	ON OPEN ON ON ON
CLOSE VERIFY VERIFY VERIFY VERIFY VERIFY	CES with key at ACR ACR sees C2BI/O-3 Out 1 is Visually CES is ACR sees for key in Closed posn ACRBI/O In 6 is ACR sees for CES CLOSED on OVP C2BI/O In 15 is ACR sees EHBI/O-3 Out 13 is At EH Main Panel CES Closed C2BI/O In 14 led is	OFF CLOSED OFF ON ON
OPEN VERIFY VERIFY CLOSE VERIFY VERIFY	CES with key at C2R ACR sees for key in Open posn C2BI/O-2 In 6 is ACR sees on OVP CES is CES with key at C2R ACR sees for key in Closed posn C2BI/O-2 In 6 is ACR sees on OVP CES is	ON OPEN OFF CLOSED
OPEN VERIFY VERIFY CLOSE VERIFY VERIFY	CES with key at EH ACR sees for key in Open posn EHBI/O In 11 is ACR sees on OVP CES is CES with key at EH ACR sees for key in Closed posn EHBI/O In 11 is ACR sees on OVP CES is	ON OPEN OFF CLOSED
OPEN VERIFY VERIFY VERIFY VERIFY VERIFY	YGS with key at ACR Visually YGS is ACR sees YRBI/O-4 Out 10 is ACR sees for key in Open posn ACRBI/O In 0 is ACR sees for YGS OPEN on OVP YRBI/O-2 In 0 is ACR sees GHBI/O-2 Out 7 is At GH Main Panel YGS Open led is	OPEN ON ON ON ON

	CLOSE	YGS with key at ACR		
	VERIFY	Visually YGS is		CLOSED
	VERIFY	ACR sees YRBI/O-4 Out 10 is		OFF
	VERIFY	ACR sees for key in Closed posn. ACRBI/O In 0 is		OFF
	VERIFY	ACR sees for YGS CLOSED on OVP YRBI/O-2 In	1 is	ON
	VERIFY	ACR sees GHBI/O-2 Out 8 is		ON
П	VERIFY	At GH Main Panel YGS Closed led is		ON
	V LIKIT I	At GII Walli I alici 1 G5 Closcu leu is		OIT
	OPEN	YGS with key at GH		
	VERIFY	ACR sees for key in Open posn GHBI/O In 7 is		ON
	VERIFY	ACR sees on OVP YGS is		OPEN
	CLOSE	YGS with key at GH		OI ZII (
	VERIFY	ACR sees for key in Closed posn GHBI/O In 7 is		OFF
	VERIFY	ACR sees on OVP YGS is		CLOSED
Ц	V LIXII I	Tier sees on OVI 105 is		CLOSED
	OPEN	YGS with key at YR		
	VERIFY	ACR sees for key in Open posn YRBI/O In 7 is		ON
	VERIFY	ACR sees on OVP YGS is		OPEN
	CLOSE	YGS with key at YR		0121
	VERIFY	ACR sees for key in Closed posn YRBI/O In 7 is		OFF
П	VERIFY	ACR sees on OVP YGS is		CLOSED
	(BL2S) and RI	FS); Yag to Fel Shutter (YFS); BL1 to Fel Shutter nb CDs: Fel Laser Power Supply (FLPS); CO2 Las; EH Laser Shutter (ELS); CO2 to EH Shutter (Cd	ser Shutter (CLS);	Yag Laser
		END OF TEST PROCEDURE		
TTL: Sig	n for completion	n of initial testing:		
			Date://	,
TTL: Sig	n for completio	n of final testing:		
	-	-		
			D-4 /	,
			Date:/	